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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,560	02/02/2001	Peter Q. Herman	P/3632-4	7119

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EXAMINER

MEHTA, ARUNKUMAR P

ART UNIT	PAPER NUMBER
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2128

DATE MAILED: 07/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/773,560	<b>Applicant(s)</b> HERMAN, PETER Q.	
	<b>Examiner</b> Arunkumar P Mehta	<b>Art Unit</b> 2128	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☐ Claim(s) 1-22 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 02 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>02 February 2001</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This application has been examined.
2. Claims 1-22 have been examined.

### *Drawings*

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "68" has been used to designate both "Run Simulator" and "Update values for Press and Pressroom routines" in Figure 4 while the specification (page 8, line 10) recites the reference character as "58". Also the reference character "110" has been used to designate both "Trainer Module" and "Computer Screen" in figure 10 and 11 respectively. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "90", "92", and "107". Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to

the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference character(s) mentioned in the description: "139", "150". Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

6. The disclosure is objected to because of the following informalities.  
Appropriate correction is required.

7. Page 9, line 12: the reference character "76" is used for the session files does not match with figure 7. In figure 7 the session files is labeled as "86".
8. Page 10, line 18: the reference character "126" is used for control console while the same is used for control panel (page 10, line 27).

***Claim Rejections - 35 USC § 112***

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
11. Claim 1 is vague and indefinite because the word "potential" in line 4 is not specific about the variable values and interactions.
12. Claim 1 recites the limitation "the printing process" in line 7. There is insufficient antecedent basis for this limitation in the claim. It appears that this phrase should be "flexographic printing process". It is not clear whether the printing process is of line 1 or line 5.
13. Regarding claim 5, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
14. Claim 6 recites the limitation "the printing process" in line 2. There is insufficient antecedent basis for this limitation in the claim. It appears that this phrase should be

"flexographic printing process". It is not clear whether the printing process is of line 1 or line 5.

15. Claims 2-4 and 7-12 are rejected based on their dependency on claim 1.

***Claim Rejections - 35 USC § 102***

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17. Claims 1, 3, 4, 13, 17, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Roger Danby et al (US 5,551,011), herein referred to as Danby.

18. As per claim 1 Danby teaches user controlled process parameters (column 4, lines 8-10; column 5, lines 1-5; figure 2A, item 22), a set of databases comprising a formal model of process variables (column 4, lines 11-13 and lines 15-16; column 5, lines 1-5; figure 1, item 18; also claim 16), process variable values (column 4, lines 27-31 and lines 44-45), interactions between process variables (column 4, lines 51-61) effects of the interactions on printing process output (column 7, lines 27-34; figure 2A, item 28), a dynamic model of the printing process (Abstract; column 2, lines 23-27 and lines 64-67; column 3, lines 1-5); user interface would be equivalent to interactive of Danby (column 2, line 49).

19. As per claim 3 Danby teaches a copy desk for reproducing the printing process output (column 7, lines 27-57; figure 1, item 17).

20. As per claim 4, Danby discloses software routines for performing image manipulations in order to produce printed effects on the process output, including changes in size of dots, dot density, modifications to a substrate surface (column 7, lines 27-57; column 8, lines 2-18).

21. As per claim 13, Danby teaches user controlled process parameters (column 4, lines 8-10; column 5, lines 1-5; figure 2A, item 22), creating a database containing a formal model (column 4, lines 11-13 and lines 15-16; column 5, lines 1-5 and also claim 16), providing a computerized workstation for accessing the database (column 3, lines 49-53; figure 1, item 12), accepting input from a user by way of a user interface, and displaying data related to process simulation (column 3, lines 63-67; figure 1, items 2 and 12; column 4 lines 1-5); processing data entered on the workstation to generate simulation data (column 3, lines 63-67; figure 1, items 2 and 12; column 4 lines 1-5); and displaying simulation data (column 3, lines 63-67; figure 1, items 2 and 12; column 4 lines 1-5; figure 1, item 16).

22. As per claim 17, Danby discloses image manipulation screens, dot size, density, and substrate surface (column 7, lines 27-57; column 8, lines 2-18).

23. As per claim 22, Danby teaches a database for storing parameters relating to printing operations (column 4 lines 8-10; column 5 lines 1-5; figure 2A, item 22), a formal model for relating input data to the database (column 4, lines 11-13 and lines 15-16; column 5, lines 1-5 and also claims 5 and 16), a user input for interactively eliciting input data from a user (column 2, line 49; column 3, lines 63-67; figure 1, items 2 and 12; column 4 lines 1-5); a simulating system for producing simulated printing output data

(column 3, lines 63-67; figure 1, items 2 and 12; column 4 lines 1-5); display for presenting the output data (column 3, lines 63-67; figure 1, items 2 and 12; column 4 lines 1-5; figure 1, item 16).

***Claim Rejections - 35 USC § 103***

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25. Claims 2, 6, 8, 16, 17, and 19 are rejected under 35 U.S.C. 103(a) as being obvious over Roger Danby et al (US 5,551,011), herein referred to as Danby.

26. As per claim 2, Danby discloses the simulation of a printing process (abstract; column 2, lines 23-27). Danby does not expressly disclose simulation of a pressroom and control systems in the pressroom. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to simulate a pressroom and associated control system for a better, efficient, and realistic simulation printing process.

27. As per claims 6 and 19, Official notice is taken that it would have been well known in the art that simulations were used to simulate different processes for a cost effective production. It is also used for training purposes to increase the operator know-how and hence operator efficiency, reducing human error, and thus reducing the down time of the process line and the production.

28. As per claim 8, Official notice is taken that it would have been well known in the art that for any type of training one needs to work with sets of questions in order to get



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more familiar and acquainted with the process to increase the know-how and hence efficiency.

29. As per claim 12, Official notice is taken that it would have been well known in the art that for any process the user needs to verify the selection of the press and associated input process parameters in order to get better, efficient, and realistic simulation.

30. As per claim 14, Danby discloses displaying the results on a monitor after the parameters are inputted (column 3, lines 62-67; column 4, lines 1-4). Danby does not expressly disclose storing these results and creating files. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to store these results and create data files for later use.

31. As per claim 15, Danby discloses use of a modem for transmitting results to another database (column 3, lines 55-59). Danby does not expressly disclose the multimedia links to data outside. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to make use of the modem for outside data.

32. As per claim 16, Danby discloses the simulation of a printing process (abstract; column 2, lines 23-27). Danby does not expressly disclose simulation of a pressroom and control systems in the pressroom. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to simulate a pressroom and associated control system for a better, efficient, and realistic simulation printing process.

33. As per claim 18, Official notice is taken that it would have been well known in the art that for any printing process densitometer is used to check the density of the printed product, magnifier is used to closely check the quality of the printed product, and the spectrophotometer is used to check the color balance of the printed product.

34. Claim 5 is rejected under 35 U.S.C. 103(a) as being obvious over Roger Danby et al (US 5,551,011), herein referred to as Danby in view of Oded Zingher (US 4,639,881), herein referred to as Zingher.

35. As per claim 5, Danby does not expressly disclose the printer diagnostic tools. Zingher teaches about the densitometer (column 4, lines 9-12; column 12, lines 27-34; figure 1, items 12 and K; figure 4). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teachings of Danby with the teachings of Zingher in order to measure the ink density based on the predetermined values and machine conditions.

36. Claims 7 and 20 are rejected under 35 U.S.C. 103(a) as being obvious over Roger Danby et al (US 5,551,011), herein referred to as Danby in view of Oded Zingher (US 4,639,881), herein referred to as Zingher and in further view of Norman E. Karel (US 5,733,634), herein referred to as Karel.

37. As per claims 7 and 20, Danby fails to teach the production costs. Karel teaches the production costs (Abstract; column 1, lines 47-59). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the teachings of Danby with Karel to come up with a simulator that gives the user a window for economic considerations for cost effective product.

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38. Claims 9, 10, and 21 are rejected under 35 U.S.C. 103(a) as being obvious over Roger Danby et al (US 5,551,011), herein referred to as Danby in view of Oded Zingher (US 4,639,881), herein referred to as Zingher and in further view of Norman E. Karel (US 5,733,634), herein referred to as Karel and in further view of Koichi Horiuchi et al (US 5,434,961), herein referred to as Horiuchi.

39. As per claim 9, 10, and 21 Danby fails to teach the copy generator module and how to analyze an image and pre-calculate process faults. Horiuchi teaches about the process of layout and typesetting for a printing process (Abstract; column 1, lines 41-47, lines 50-63; column 6, lines 58-68; figures 27(B) and (C)). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the teachings of Danby with Horiuchi in order to simulate the real life images for more realistic experience.

40. Claim 11 is rejected under 35 U.S.C. 103(a) as being obvious over Roger Danby et al (US 5,551,011), herein referred to as Danby in view of Oded Zingher (US 4,639,881), herein referred to as Zingher and in further view of Norman E. Karel (US 5,733,634), herein referred to as Karel and in further view of Koichi Horiuchi et al (US 5,434,961), herein referred to as Horiuchi and in further view of David G. Pung et al (US 5,027,293), herein referred to as Pung.

41. As per claim 11, Danby fails to teach the diagnostic help system module for presenting the databases to help users troubleshoot print problems. Pung teaches the diagnostic system for production line and plurality of process machines (Abstract; column 19, lines 39-61; claims 8 and 11). It would have been obvious to one of ordinary

skill in the art at the time of invention was made to modify the teachings of Danby with the teachings of Pung to come up with a efficient and realistic simulation for a printing process.

### **Conclusion**

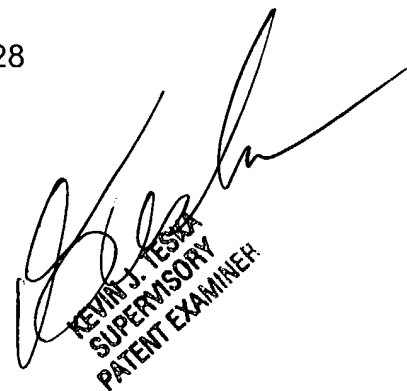
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arunkumar P Mehta whose telephone number is 703-605-1227. The examiner can normally be reached on 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached on 703-305-9704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Arunkumar P Mehta  
Examiner  
Art Unit 2128

APM



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